CMTC Lessons:
Company Operations

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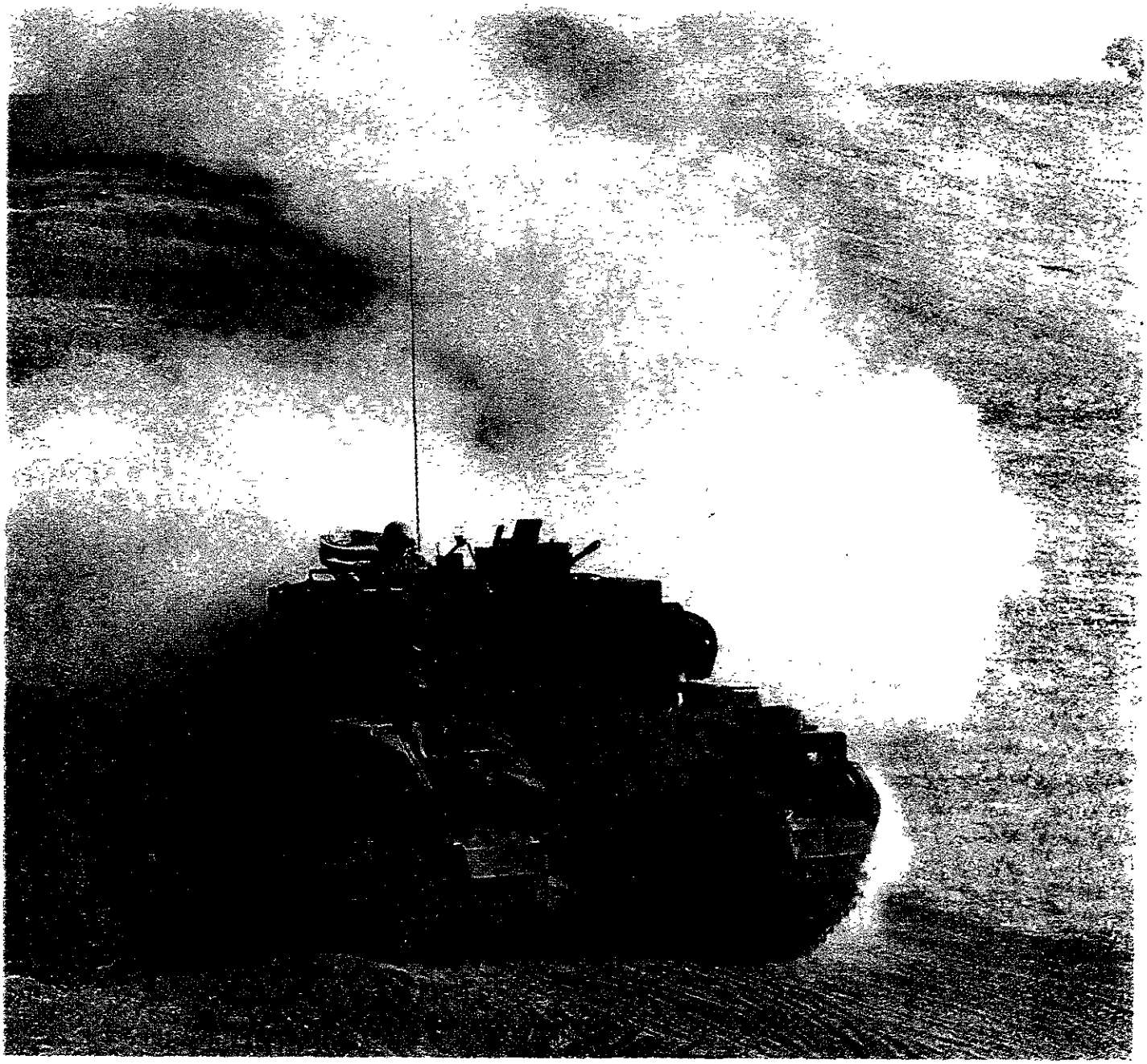


Observations of operations at company level have shown trends that seem to transcend the type of unit conducting them. During several years of observation, the lessons learned at the Combat Maneuver Training Center (CMTC) in Germany have been refined and documented, and we present them here for the benefit of training units. For convenience, these lessons are discussed under the seven battlefield operating systems.

Intelligence

An intelligence preparation of the battlefield (IPB) consists of the following elements:

- Battlefield area evaluation.
- Terrain analysis (OCOKA—observation and fields of fire, cover and concealment, obstacles and movement, key terrain, and avenues of approach).
- Weather analysis.
- Threat evaluation.
- Threat integration.

The IPB conducted at company team level is seldom complete. Too often, company IPB data are extracted from the S-2 information that was briefed at the task force operations order (OPORD), or they simply repeat the S-2 data. The most important intelligence information a commander can provide is an accurate description of what the enemy will look like in the company's area of operations.

Terrain analysis at the company level must identify more than "slow go" and "no go" terrain. Individual trails and mobility corridors must be identified, and an actual reconnaissance must be conducted. In the defense, this reconnaissance will detail all mobility corridors and connecting trails leading into and out of the company engagement area, and within the area itself. Choke points and natural terrain features that might be used with obstacles should be identified, as well as the locations of dead space and routes to them.

Any key discoveries from this detailed reconnaissance should be reported to the battalion. For example, the company effort may reveal a new bridge or a high-speed road that is not shown on the current maps. Such key elements as these could affect the task force plan.

Similarly, the weather analysis must be detailed, and the plan must be based on the most likely conditions at the time the mission is to be executed. Contingency plans, however, must address any possible restrictions that weather conditions may impose. The most common oversight is in planning for limited visibility caused by darkness or fog.

The company analysis of the enemy must include the following details on the enemy's composition:

- Capability—weapon systems, lethal ranges, limitations.
- Weaknesses—strength, morale, training deficiencies, or equipment shortages and limitations.
- Intentions—formations, missions, area of operations, probable objectives.
- Physical description—type and composition of different echelons of reconnaissance, vehicle types (including aircraft), uniforms, and equipment.

Once the enemy composition and intentions are known (threat evaluation), the unit must evaluate how the enemy will attack in the company sector or defend from the company objective (threat integration). We often assume that the unit's soldiers know the enemy, but even the most seasoned soldiers can benefit from a review. The review should focus on the ways in which the enemy may be deviating from a doctrinal template. This review is most helpful when the soldiers have returned from continuous operations; leaders must remember that the soldiers are the best source of intelligence because they get closest to the enemy.

Intelligence gathering at company level is often limited to any named area of interest (NAI) that is specified in the task force operations order. The company commander should use the many intelligence gathering resources available to him. His checklist—and the unit standing operating procedures (SOPs)—should include specific guidance on the following:

- The employment of PEWS (platoon early warning systems).
- The employment of M-8 alarms.
- An aggressive reconnaissance and security plan (local patrolling, local security).
- Passive security measures.

A unit's security posture should be a function of a METT-T (mission, enemy, terrain, troops, and time) analysis. The fact that there are scouts or counterreconnaissance efforts forward of a unit does not necessarily mean there is no enemy threat in the company's area of operations. Remnants of enemy units and partisan activities should always be considered potential threats, in addition to any enemy reconnaissance forces that may have eluded the forward counterreconnaissance efforts.

An IPB is a continual process that requires continual refinement. As a unit's reconnaissance efforts reveal enemy activities and intentions, this information is reported to the higher headquarters. A system needs to be in place to ensure that this information is also provided to all subordinate leaders. This becomes a real challenge late in the planning process, when the most accurate information usually becomes available. Units repeatedly succeed when they ensure that the front-line soldiers understand the threat (as a result of the orders process) and have the most up-to-date information as they enter the fight.

Maneuver

The lessons on maneuver include some general considerations. First, units must train to ensure their proficiency in battle drills. Such proficiency will save lives, because it enables soldiers to react instinctively during the critical first few seconds of contact with the enemy.

Once the warning order informs subordinate units of the upcoming mission, the unit should rehearse specific battle drills as directed in the unit standing operating procedures (SOP). If the SOP does not direct specific drills, the drills to be rehearsed should be listed in the warning order.

All operations should be rehearsed to the fullest extent possible. A unit should strive for a full, combined arms rehearsal, including all assets and—if possible—on the actual terrain where the mission will be conducted. If this is not practical, the level of involvement can be scaled down, consistent with METT-T, but it should still include as many soldiers and systems as possible.

In an assembly area, for example, the attached engineers might construct a complex obstacle similar to the kind expected in the upcoming operation. Following this rehearsal, the obstacle should be built again for the purpose

of a company combined arms rehearsal of all elements at the same time. The company fire support officer (FSO) should call for smoke to obscure the target and ensure that the alternate shooter rehearses it as well. The lane should be marked to standard.

Rehearsals must be done at every level, and the more contingencies rehearsed, the better. There is no danger that rehearsing contingencies will confuse subordinates, so long as they understand the commander's intent; in fact, these rehearsals will reinforce different means of accomplishing the mission. *(See also "Tactical Unit Rehearsals," by Captain James L. Boling, in INFANTRY, March-April 1991, pages 25-30.)*

The time and space relationships for maneuver must be practical. If an element is required to reposition, the order for its displacement must allow for its movement in time to accomplish its mission. The worst possible scenario should be rehearsed; for example, moving in chemical protective gear (MOPP Level IV) at night. If the order for displacement allows enough time for this scenario, it is workable. If it does not, a different trigger point or decision point which affords more time must be selected. A leader cannot merely hope that the plan—and the risks involved—will be exactly as briefed.

During offensive operations, an IPB must be an ongoing process that requires constant refinement. Intelligence on enemy activities, such as the scouts identifying the location of a combat observation post or an obstacle, may become available only at the last minute, and a system must be in place that will make sure the maneuver units have full benefit of the latest intelligence updates.

The commander must ensure that the control measures are adequate to aid command and control during the execution of the mission. If appropriate, the control measures should be graphically depicted and rehearsed. In addition to aiding fire control and fire distribution, these measures will help prevent fratricide.

The techniques that can be used during dismounted actions on the objective include having only key leaders fire tracers. The other soldiers then fire where their leaders have directed them. Another technique, particularly useful at night, is to prohibit the use of automatic fires until they are directed; the soldiers can then assume that all other automatic fires are coming from the enemy. Ground-burst illumination on the objective can also help control fires. During a dismounted assault, leaders might consider the most effective employment of combat vehicles and their thermal optics. In a passive role, they can be invaluable in providing intelligence.

Again, a combined arms rehearsal is absolutely necessary. It should be conducted under the same conditions that are expected during the mission—darkness or in chemical protective gear. The rehearsal should include all assets (fire support, engineers, combat service support) and should use as many of the soldiers and systems as possible. If the rehearsal is limited by time or some other constraint, it can include only key leaders.

The plan must detail consolidation and reorganization. A good technique is to plan backward from the objective (as included in the commander's intent) to the line of departure. If most of the planning time and effort is not focused on the objective, the plan may lack the necessary detail and coordination.

The IPB must be thorough and tailored to the company's portion of the battlefield, including what the enemy will look like in the company sector. The spot where the unit wants to engage the enemy should be marked with a target reference point (TRP). This is the location where fires may need to be massed. The TRP needs to be easily identifiable and should be heated to allow recognition during periods of limited visibility.

"What is necessary to be performed in the heat of action should constantly be practiced in the leisure of peace."

Vegetius: De Re Militari, 378 A.D.

A company may need more than one TRP to control the fires of its subordinate elements. One technique is to assign responsibility for emplacing and servicing TRPs to subordinate elements. The unit SOP should specify that the element assigned responsibility for a TRP must also keep it heated. Each platoon should be required to build and carry a heated TRP kit.

Range cards and sector sketches must be prepared to standard. The unit SOP should dictate the times for completion and submission, and these times should be enforced. The status of the preparations should be maintained in the company command post (CP) and should include such key events as digging vehicle fighting positions (primary, alternate, and supplemental), emplacing obstacles, and building and camouflaging individual fighting positions.

Local security is a continuous process. The SOP should address the use of PEWS, M-8 alarms, wire instead of FM radio, radio listening silence, observation posts (OPs), aggressive local patrolling, and the use of camouflage. The SOP should be supplemented with any specific guidance that may be unique to the current mission.

Units should consider using pre-stocked Class V and digging it in. Careful planning will help determine whether the ammunition should be located with each vehicle, at platoon cache points, or in alternate or supplemental positions.

In the defense, a patient collection point is probably needed for each platoon. The location must be well marked (considering limited visibility), and a route must be available to allow the evacuation vehicles forward. Evacuation along this route must be rehearsed.

The use of "no-move times" should be considered. This technique, when well disciplined, allows for better acquisi-

tion of enemy vehicles, since no friendly vehicles are moving. It is particularly useful when enemy reconnaissance elements are likely to be in the area. Again, company combined arms rehearsals should be conducted at every level.

Fire Support

Units should adhere to the fire support doctrinal considerations of implementing "top-down planning" and "bottom-up refinement." The top-down planning is usually done in drafting the OPORD, but the refinement process often requires the commander's attention.

The FSO should accompany the commander throughout the planning process. He should attend the task force order briefing with the commander. This not only provides him with early first-hand information on the upcoming mission; it also enables him to make direct, face-to-face coordination with the task force FSO and the other company FSOs who are attending the order with their commanders. Similar coordination should take place at rehearsals.

Fire support planning should include all elements of fire support, including artillery and mortar fires, close air support, and naval gunfire, if available.

Primary and back-up fire support should be identified for each target. Both should be in position to acquire the target and have the necessary graphics, call signs, frequencies, and communication assets to do this job. A company commander should be careful not to overload his FSO with the task of being primary shooter for all targets. The FSO should be put in the best position from which to support the overall mission and then allowed to orchestrate and coordinate the overall operation. The placement of the fire support vehicle (FIST-V) should be carefully considered, particularly in offensive operations. Immediately behind the commander's vehicle is not usually the best position for it.

During defensive operations, the commander might consider digging in the FIST-V and dismounting the crew members and positioning them forward, dug-in, with overhead cover. Fires should be registered whenever possible, particularly key targets and final protective fire lines.

"The man who is prepared has his battle half fought."

Cervantes: Don Quixote, 1605 A.D.

The commander should always plan for limited visibility. He should know what munitions are available, any restrictions on their use, and the location of fire support assets.

The fire support plan—including graphics, target list, and matrix—must be disseminated to all key personnel. Once the refinement process is completed, the updated plan is disseminated.

A good technique for briefing the fire support portion of the OPORD is to have the commander brief his intent for fire support, followed by the FSO briefing of the fire support plan.

The fire support chain will conduct its own rehearsal, but the fire support elements still need to participate in the company's combined arms rehearsal.

Everyone needs to know how to call for and adjust indirect fires. Having a forward observer does not eliminate the need to train and rehearse this skill. Plans must include measures for identifying and safeguarding friendly forces to prevent fratricide.

Air Defense

The control and air defense (AD) warning status should be disseminated. It describes for the soldiers exactly what they are expected to do and illustrates the weapons control status. The air defense plan may change during different phases of an operation, and it is important for the commander to clarify this in his order. If passive air defense measures are to be taken, the order should explain exactly what the soldiers are expected to do. Similarly, if the company air defense plan includes combined arms air defense (CAAD), this must be specified and clarified in the order. These elements should be included in the unit SOP to help streamline the orders process.

The air IPB should be disseminated. Information on known friendly air missions in the unit area of operations will help prevent fratricide.

If a Stinger team is working with the company, the commander must talk to the team leader early to make sure both understand the exact support relationship directed in the task force order. This early coordination will also help identify any problems the air defender may be having (maintenance, Class V, and the like). In this early coordination, the commander should find out exactly what the team leader's capabilities and limitations may be (is he under armor?). AD must be integrated into the reconnaissance and security plan, and the team leader should be included in the orders process. He can brief the air defense portion of the order and should be present for the company combined arms rehearsal.

Mobility, Countermobility, Survivability

The company should link up with supporting engineer assets as soon as possible and conduct face-to-face coordination with the engineer leader to verify the status of his unit. He should be allowed to detail his specific capabilities and limitations, which will help make the most of this key asset. Attached engineers must be considered in LOGPAC (logistics package) estimates.

The plan must call for redundancy in breaching assets. If the success of the plan is predicated upon successfully breaching a specific obstacle, a plan must be briefed and rehearsed that will cover contingencies in case the mine clearing line charge (MICLIC) is destroyed or damaged before the breach can be made. These contingencies should be part of the plan and should be rehearsed at combined arms breaching rehearsals. The plan should include an instride breach. Even if this is part of the unit SOP, it still

requires special attention and rehearsal.

The marking of a lane in an obstacle needs to be standardized and included in the SOP. It is important that the marking be standardized, at least at the task force level, and preferably at the brigade or division level as well. The initial marking will probably be hasty to keep the unit from losing momentum as it continues with the attack. While the elements are passing through the breach, engineers need to continue widening and marking the breach. The marking system must be disseminated to follow-on units. A follow-on unit that is not familiar with the marking of the lane during this critical time may suffer unnecessary casualties, and the lane could be blocked by a disabled friendly vehicle. Limited visibility markings also need to be considered. Breached lanes must be reported to subordinate elements and to the higher headquarters.

Once the obstacle has been breached and the lane appropriately marked, it is often a challenge for the follow-on elements to find the breach. A useful technique is to have the breach manned by a guide in an armored vehicle with FM communications to help vector in the follow-on elements. This vehicle should stand off from the breach to improve its survivability and direct the follow-on elements to the site of the lane. This technique is particularly useful during periods of limited visibility.

The tactical countermobility plan is designed to support the task force commander's fight. It is important to clarify the intent of the obstacle plan and the way it supports the scheme of maneuver. Obstacles are designed for various purposes: to turn, disrupt, fix, or block the enemy forces. Clarifying the intent of the obstacle plan will help synchronize the efforts of the supporting engineers and subordinate elements. Otherwise, a well-intentioned subordinate may place a blocking obstacle to protect his front, while the task force commander may want to allow the enemy unimpeded access through that location and into an engagement area.

The task force obstacle plan should be reviewed and reconnaissance conducted well before the supporting engineers arrive. The actual placement of an obstacle may require adjustments to the plan to complement natural obstacles or to ensure coverage by direct fire. Obstacles that are not covered by direct or indirect fire are ineffective and a waste of engineer assets and effort. The ownership of assigned obstacles must be established. Inherent in obstacle ownership is the responsibility for inspecting and repairing obstacles, reseeding minefields, and closing lanes.

Priorities must be established for using the digging assets and a posted time line must be adhered to. Then, even if blade time is curtailed, the most important positions are still likely to be completed. The construction of vehicle fighting positions is the responsibility of the vehicle commander, who supervises the engineer effort to ensure that the position is properly located and oriented and dug to standard.

The positive link-up and hand-off of digging assets must be ensured. One technique is to designate a dozer chief, someone who escorts the digging assets throughout the defensive area and ensures compliance with the priorities and the time line.

Another technique is to have the digging assets escorted from one position to another by the next element on the priority list. For example, the platoon that is second in priority of effort would send a representative to the first element to escort the digging assets to its own battle position in accordance with the time line. Regardless of the technique, it is important to make the best possible use of these valuable resources.

There should be no engineer effort in a company area of operations without the unit's knowledge and supervision. This rule will help eliminate wasted effort by ensuring that obstacles are placed correctly. Additionally, a unit should be responsible for the local security of the engineers while they are working in its area. The engineer unit will not be as efficient if it has to provide its own security while emplacing obstacles or digging. To prevent fratricide, the unit's soldiers need to be aware that the engineers are moving into and around the company area.

The task force SOP, supplemented by the OPORD, should clearly define the responsibility for transporting and positioning Class IV and V supplies. If it is not clear how this is to be done, the commander should ask questions at the order briefing.

Consistent with the task force commander's intent, the company commander might consider emplacing point obstacles in depth, particularly during limited visibility. In addition to denying the enemy access into the defensive position, these obstacles may confuse his reconnaissance as to the unit's actual defensive positions. Point obstacles can also provide early warning of an enemy presence, as he stops to overcome them.

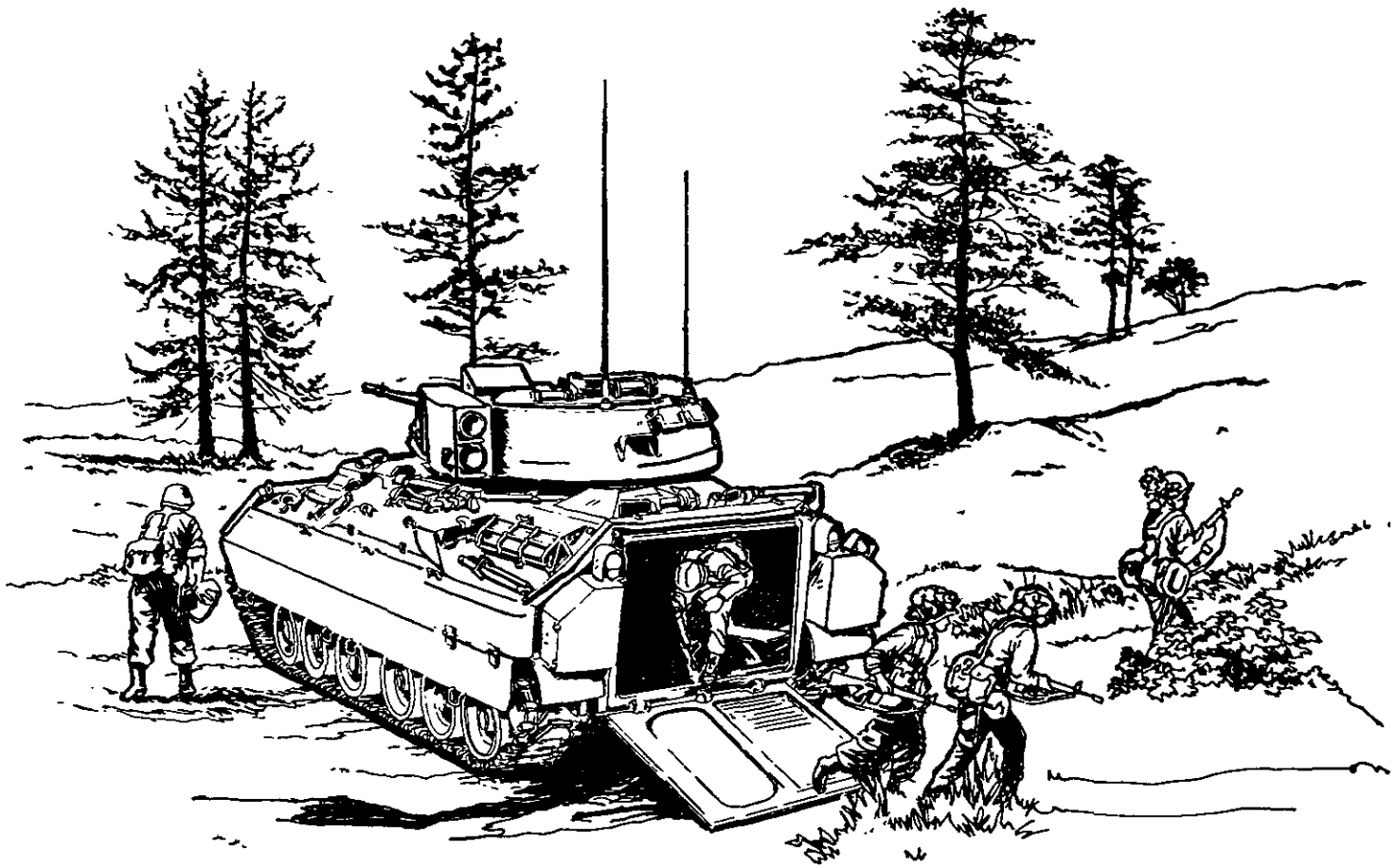
Once the obstacles have been emplaced according to the plan, the entire defense should be reviewed and the tactical operations center (TOC) notified of any changes or additions to it. All obstacles must be covered by direct or indirect fires, and any lanes that need to be closed must be identified and responsibility for this action fixed. The obstacle plan and all other pertinent information must be disseminated to everyone in the company to prevent fratricide.

A nuclear, biological, chemical (NBC) threat analysis should be conducted so the company will understand the enemy's capabilities and the likelihood that he will use chemical agents. The effects of the weather on chemical agents should also be a part of the IPB process.

The unit SOP must govern the use of the M-8 alarm, M-9 paper, M-256 kits and the use of over-pressure systems. Precombat inspections (PCIs) should include these items. An adequate supply of wire should be designated solely for use with M-8 alarms and stored with them.

Additionally, the SOP should address who performs the initial chemical agent tests with the M-256 kit and when and by whom subsequent tests are to be conducted. It should also address the marking of contaminated areas, casualties, vehicles, and routes.

Hasty decontamination planning should occur whenever the threat analysis indicates that the enemy may use chemi-



cal agents. This planning should include locating a water source near the unit, protective garment exchange, a routing map of decontaminating stations, medical evacuation and treatment of contaminated casualties, and a route identification for vehicles carrying contaminated material.

NBC skills should be rehearsed and practiced as part of the priorities of work. These should be included in the commander's time line and inspected to ensure compliance.

Combat Service Support

Combat service support (CSS) should be integrated early in the planning process. Any changes to the task organization will have CSS implications, particularly in Classes I, III, V, and IX.

Doctrinally, the company XO plans CSS and the first sergeant executes the plan. One technique is to have the XO and the first sergeant work together in the planning process and have the first sergeant brief the CSS portion of the company operations order. This involves the first sergeant in the early planning and gives him a better understanding of the commander's intent.

CSS graphics must be disseminated to the lowest level, and the company CSS plan should be on the company maneuver graphics. The company team CSS plan must be disseminated to all potential users. One technique is to have the first sergeant reproduce enough copies of the team's CSS graphics and matrix to ensure that the company XO and the platoon sergeants have copies. If the first sergeant becomes a casualty, the commander will have some options in deciding on his replacement. Because of other circumstances on the battlefield, the SOP on who assumes the first sergeant's duties and responsibilities may be impractical, but the platoons should still have access to the task force CSS plan.

Whenever a subordinate element is assigned a mission that separates it from the company, CSS considerations should receive special attention. For example, in an offensive operation, a company may be required to send out reconnaissance patrols that will not link up with the company until it is in the assault position. Is resupply practical, or must the combat load of each soldier sustain him for the duration? Will aerial resupply be necessary? What about water? What types of ammunition and how much? What is the plan for casualty evacuation?

A LOGPAC includes all classes of supply to sustain operations. The SOP should include formats to permit the requisition of all supplies.

The SOP should also specify how to report casualties and how to render a long distance recognition signal for the evacuation vehicles. One technique is to use colored flags. A red flag might signal urgent patients, and a yellow flag, priority patients. A method such as this speeds the evacuation of more critical patients and saves lives.

The CSS plan should be rehearsed as part of the company combined arms rehearsal. The first sergeant should personally attend the task force CSS rehearsal. Platoons should rehearse the evacuation of casualties from individual fighting positions to the patient collection point. Medics should rehearse the evacuation from the collection points to the for-

ward treatment team. Recovery crews should reconnoiter routes from the company positions to the appropriate maintenance collection points.

Command and Control

It is most important for soldiers to understand the commander's intent. If they do, they will enjoy greater success while acting independently in executing their mission. Their efforts will be better focused on the execution of the company mission.

The rule that is probably violated most often is to keep the plan simple and executable. Enough complications are generated by battlefield confusion, limited visibility, chaos, poor communications, and any number of other elements that add to the *fog of war*. The plan should be simple and graphically correct. If there is no requirement to pass units through one another, it should not be planned. If there is no requirement for units to cross in front of one another, it should not be planned. Likewise, if there is no requirement for forces to converge on an objective, they should not be required to do so. If there is a requirement for two forces to converge on an objective, and one of the forces can be made stationary so that only one is moving on the objective, the plan will be less complex.

Many units either do not have a functional SOP or do not use what they have effectively. An SOP is a reference that governs a unit's routine functions. It aids in the rapid assimilation of new individuals and cross attached units. A unit that is habitually cross attached must have a current copy of the SOP, and once all parties have copies, it is important that they understand it and use it. The more functions that can be standardized and incorporated into the SOP, the less will have to be directed in an operations order. Obviously, enforcing the use of an effective SOP is far more efficient than trying to coordinate, direct, and supervise every aspect of an operation.

The SOP should include pre-established order groups. The key individuals must know who they are and which of them are required at what portions of the orders process.

The SOP should specify when subordinate elements are to conduct each PCI. Conduct of the PCIs should also be included on the time line.

Task organization for a mission must be prompt, and the first sergeant must be briefed immediately on any changes to the organization. He can then modify his plan to resolve any CSS problems. If the LOGPAC has already been configured, it may make more sense to adjust the effective time of cross attachment. Early information pertaining to a change in task organization will allow for timely planning and appropriate adjustments.

Unless coordinated otherwise, any cross attached units must be brought under the explicit control of the gaining unit at the time specified. One way to do this is to make sure the time is specified in the task force OPORD. If the order does not specify when and where link-up is to occur, the commander must make the coordination before leaving the TOC. The commander must see that frequencies and call signs are exchanged and must direct a subordinate to verify that link-up has occurred as planned, or have him call the other units immediately—on their frequencies—to sort out any problems. Another technique is for the commander to send a liaison to the attached unit to guide it into the appropriate position in his area of operations and then escort the leader to the CP.

It is important for everyone to conduct land navigation refresher training, because this facilitates rapid response to contingency missions and calls for fire.

Radio net discipline is critical. The subordinate elements on the net need to understand the importance of cross talk, but they also need to understand when they should keep the net free so that units in contact can pass reports or request instructions. Unnecessary radio transmissions only increase the likelihood that a unit will be located and targeted.

The effective articulation of the commander's directives is absolutely necessary. The five-paragraph operations order must be supplemented with neat, correct graphics. The use of an execution matrix helps the commander envision the fight as he plans it and also helps his subordinates see where the other elements are and what they are doing during any phase of the operation. This helps synchronize the fight. Since the matrix is organized by phase, it also helps subordinates understand the operation by allowing them to grasp each phase in succession. The use of a sketch, which can be on the same page as the execution matrix, also helps subordinates see the big picture.

Some sort of checklist or preprinted format must be used in preparing and presenting orders, because there is too much to remember. A more orderly, complete, and structured OPORD will result, and it will take less time. A terrain model or large sketch should be used in presenting orders. Briefing an operation order from a 1:50,000 map sheet is not as effective.

A briefback immediately following the order allows each leader to show that he understands the plan and, specifically, that he understands his element's role in the company mission. No unit will operate in isolation; the questions one leader asks at the briefback usually pertain to other elements as well.

Some of these lessons learned at the CMTC about company operations—some of the techniques and procedures—have been presented here to illustrate better ways (or different ways) to accomplish certain tasks. To experience success on the battlefield, a unit must train as it expects to fight.

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